



# MOOS - Mutual Open and Online Skills

(Code: 2014-1-IT02-KA201-003651\_1)

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## *European Common Curriculum*

### MOOS



*Mutual Open and Online Skills*

**Partners:**

Liceo scientifico statale "Galilei" (Pescara, ITALY)

Täljegymnasiet (Södertälje, SWEDEN)

Colegio Blanca de Castilla (Burgos, SPAIN)

Starostwo Powiatowe - Zespół Szkół Ponadgimnazjalnych (Busko – Zdrój, POLAND)

Berufskolleg am Haspel (Wuppertal, GERMANY)

Puolimatkan koulu (Hyvinkää, FINLAND)

King's School, Ely (Cambridgeshire, UNITED KINGDOM)

## Index

1. Presentation .....	2
2. Common Learning Strategies and Didactic Methods .....	4
3. Key Competences and Skills in High School Digital Curriculum Error! Bookmark not defined.	
4. Common Syllabus.....	6
5. Common Standard and requirements for the Course and Lessons.....	7
6. Common Assessment: models and tools.....	8

## What is a European Common Curriculum :

The idea of a common curriculum is to eliminate educational disparities in students from different countries in Europe by implementing a single set of standards across the European nations. The goal is that certain educational standards will be met regardless of where a student attends public or private Upper Secondary school.

### 1. Presentation

The European Common Curriculum will set out the common aims and objectives for all the MOOS courses on a European level. It will specify the didactic methods and strategies used in MOOS courses as well as the skills that are evaluated and assessed in each course.

The curriculum focuses on the acquisition of key competences in linguistic, social-historical and scientific-mathematical areas for students aged 15-17. These key competences will be acquired through the use of OER and ICT instruments that will stimulate different and new ways of learning and produce new skills. The use of ICT tools and OER also aim to increase the effectiveness of education as it will produce more personalized learning and a better learning experience. MOOS thus aims to promote equality by increasing the availability of knowledge. MOOS courses therefore aim to foster the improvement of digital learning skills.

One objective of MOOS is to develop multilingualism through the use of Content and Language Integrated Learning (CLIL). Another objective is to extend the accessibility of high school courses, especially for disadvantaged students as it acts as a compensation instrument. MOOS courses are freely available to everyone and aim to even out social-economic factors between and within European countries that impedes learning. The aim is to prevent and reduce early school leaving by enhancing the students' motivation and create flexible educational pathways.

## 2. Common Learning Strategies and Didactic Methods

The European Common Curriculum is based on a combination of different learning strategies and didactic methods as to facilitate learning for as many students as possible. Below is an outline of the learning strategies and didactic methods used in MOOS courses, each individual course will specify what strategy and methods are being used.

<b>Strategy</b>	<b>Didactic methods</b>
Learning by reading/listening	Cooperative and autonomous learning through: <ul style="list-style-type: none"><li>• Face to face lecture</li><li>• The use of different types of exercises</li><li>• Flipped classroom</li></ul>
Learning by doing	Cooperative and autonomous learning through: <ul style="list-style-type: none"><li>• Problem solving</li><li>• Face to face lecture</li><li>• The use of exercises</li><li>• Flipped classroom</li></ul>
Learning by working	Cooperative and autonomous learning through: <ul style="list-style-type: none"><li>• Face to face lecture</li><li>• The use of exercises</li><li>• Applicative exercising</li><li>• Case studies</li><li>• Training on the job</li><li>• Flipped classroom</li></ul>
Learning by searching	Cooperative and autonomous learning through: <ul style="list-style-type: none"><li>• Face to face lecture</li><li>• Case studies</li><li>• Guided discovery/Simulation</li><li>• Frontal lecture</li></ul>
Informal learning	<ul style="list-style-type: none"><li>• Visit on site (school trip)</li><li>• Reading newspapers and reviews</li><li>• Navigation on the Internet</li></ul>

### **3. Key Competences and skills in High School Digital Curriculum**

The European Common Curriculum aims to develop key competences for lifelong learning, as identified by the recommendations made by the European Parliament and the Council (2006/962/EC, 18 December 2006, Official Journal L 394 of 30.12.2006).

These key competences are identified as:

- Communication in the mother tongue
- Communication in foreign languages
- Mathematical competence and basic competences in science and technology
- Digital competence
- Learning to learn
- Social and civic competences
- Cultural awareness and expression

## Principle competences in a European Common Curriculum for Upper Secondary Schools

<p>Communication in foreign languages</p>	<p>Competence in foreign languages, especially English, requires knowledge of grammar, functions, vocabulary and awareness of the main types of verbal interaction and registers of language.</p> <p>Essential skills consist of the ability to understand spoken and written messages, to sustain conversation, to read and produce texts.</p>
<p>Mathematical competence and basic competences in science and technology</p>	<p>You should have the skills to apply basic mathematical principles and processes in everyday contexts at home and work, and to follow and assess chains of arguments.</p> <p>Competence in Science refers to the ability to use knowledge and methodology to explain the natural world.</p> <p>Competence in Technology refers to the application of that knowledge and methodology in response to human wants or needs.</p>
<p>Digital competence</p>	<p>Digital competence involves basic skills in ICT: the use of computers to retrieve, assess, store, produce, present and exchange information, and to communicate and take part in collaborative networks via the Internet.</p>
<p>Learning to learn</p>	<p>Learning to learn skills require the acquisition of basic skills such as literacy, numeracy and ICT skills necessary for further learning. You should be able to access, process and assimilate new knowledge and skills. This requires effective management of learning and in particular the ability to persevere, concentrate and reflect critically on the purposes and aims of learning.</p>
<p>Social and civic competences</p>	<p>The core skills of social competence include the ability to communicate effectively in different environments, to show tolerance, to express and understand different points of view, to create confidence and to feel empathy.</p> <p>Civic competence is based on the knowledge of concepts of democracy, justice, equality, citizenship and civil rights.</p>
<p>Cultural awareness and expression</p>	<p>Cultural awareness includes local, national and European heritage. It is essential to understand the cultural and linguistic diversity in Europe, and in other parts of the world, the need to preserve and appreciate it. Europe is based on three cultures: Roman ( Engineering, Architecture and Law ), Greek ( philosophical thought ), and Jewish-Christian (religious thought ).</p> <p>Skills include the appreciation of works of art and the ability to relate one's creative and expressive viewpoints to the opinions of other people.</p>

These key competences will be acquired through the use of OER and ICT instruments that will produce new skills. The European Common Curriculum aims to teach and assess the following skills.

### Learning innovation skills

Students should develop innovation skills that will enable students to turn ideas into action.

Students should develop the skill to think creatively.

Students should develop the skill to work creatively with others, for example communicating new ideas to others, being open and responsive to new perspectives.

Students should develop the skill to implement innovations as prototyping.

### Information and media skills

Students should develop information and media skills that will enable them to confidently use ICT tools and critically use and interpret digital sources.

Students should develop skills to access information efficiently, both regarding time and sources.

Students should develop skills to use information accurately and creatively

Students should develop skills to manage information from a wide variety of sources such as Internet, libraries, archives, newspapers, academic papers, databases etc.

Students should develop skills to understand how and why media messages are constructed.

Students should develop skills to examine how media can influence beliefs and behaviour.

Students should develop skills to use the most appropriate media tools to communicate.

Students should develop skills to use technology as a tool to research, organise, evaluate and communicate.

Students should develop skills to evaluate legal issues on communication and information.

### Life and career skills

Students should develop life and career skills that will prepare them to effectively participate in social and working life in a constructive way, especially as active members of democratic society.

Students should develop skills to be flexible, to understand and share different views.

Students should develop skills to manage goals, objectives and times such as balancing long and short term objectives.

Students should develop skills to work independently and being able to complete tasks without direct oversight.

Students should develop skills to become self-directed learners that expand their knowledge and competences for lifelong learning

Students should develop skills to interact effectively, such as being respectable and professional.

Students should develop skills to be able to work in different teams where they respect cultural differences and responds open-mindedly.

Students should develop skills to manage projects, i.e. plan, manage and produce extended results.

Students should develop skills to carry out self-evaluation and pursue quality management.

### **Critical thinking**

*Students should develop skills for critical thinking that will give them tools for evaluation and questioning material, information and views.*

*Students should develop skills to reason effectively using inductive and deductive methods*

*Students should develop skills to use systemic thinking, i.e. analyses how parts of a whole interact with each other.*

*Students should develop skills to make judgements and decisions. For example analyzing and evaluation points of views, beliefs and arguments; synthesizing and making connections between information and arguments; interpreting information and drawing conclusions.*

### **Problem solving**

*Students should develop skills in problem solving that will give them the ability to tackle a wide range of problems, both practical and theoretical.*

Students should develop skills to solve familiar and unfamiliar problems using knowledge, facts and data.

Students should develop skills to identify and put forward significant questions that will clarify various points of view and lead to better solutions.

Students should develop skills to understand what the goal of the problem is and what rules could be applied to solve the problem, for example abstract thinking and creative solutions.

### **Communication skills**

*Students should develop skills in communication in order to express and interpret ideas, thoughts, concepts and facts and to give them tools to interact in different cultural and societal contexts.*

Students should develop skills to communicate in English and develop second language skills in the areas of listening, speaking, reading and writing.

Students should develop skills to communicate clearly by articulating thoughts and ideas using oral, written and nonverbal communication skills in a variety of forms and contexts.

Students should develop skills to listening effectively to decipher meaning, intentions and attitudes.

Students should develop skills to use the right channel or different types of communication.

## Collaboration skills

Students should develop collaboration skills in order to explore and incorporate different aspects of problems to reach more effective solutions.

Students should develop skills to work effectively with others on common tasks.

Students should develop skills to take decisions and actions that respect the needs and contributions of others.

Student should develop skills to achieve a practical solution to problems.

Student should develop skills to understand how to contribute to and accept consensus.

## 4. Common Standards and Requirements for the Courses and Lessons

Each MOOS course will be made up of 5 to 6 units. Each unit will consist of one lesson (max 30 minutes) and homework/assignments (max 30 minutes). Each unit will be divided into two or more subsections containing videos, lectures, texts, exercises etc. Each lesson will start with a short presentation which may be a video with transcript to help the foreign student understand what is being said. The last lesson of every course will be a Test.

The first units have been published on 1<sup>st</sup> September, 2015 and all courses will remain open even after the project has ended. After a period of testing with Erasmus students all courses have been finalized and released to all countries for dissemination .

Each course consists of the following key elements:

- Instructor Lecture Videos
- Guest Lecture Videos
- Readings (e.g., articles, scientific papers, book excerpts)
- Discussion Forums
- Weekly Practices (graded or ungraded)
- Weekly Homework (graded or ungraded)
- Pre-/Post-Course Survey
- “Problem Sets”: Self-test questions after selected videos and readings ( which are graded)
- Midterm (graded)- not mandatory.
- Final Exam (graded)-mandatory.



## 5. Common Syllabus – The 15 MOOS Courses

The courses in the MOOS Project are indicated below and have followed the format of the European Common Curriculum agreed by the Steering Group meeting in Sweden.

- [MOOS Project Presentation](#)
- [Properties of construction materials](#)
- [Making web pages](#)
- [Ars Mutandi 1](#)
- [English argumentative essay and a healthy life style](#)
- [Observing your local environment](#)
- [Chemistry and pollution](#)
- [Exploring Europe through Polish History](#)
- [Smart Physics](#)
- [Krakov – the Royal City](#)
- [The Essential Music](#)
- [Spanish in Use](#)
- [A journey of flavour from Pizza to Ginger](#)
- [Uniform and Accelerated Motion](#)
- [Introduction to Python](#)
- [Roman Architecture between Imperial power and construction innovations](#)

## 6. Common Assessment: models and tools

The European Common Curriculum will assess students' competences, knowledge and skills both digitally and in presence. Digital assessment will take place on the MOOS digital platform continuously through the courses. Assessment in presence will take place only at the training course in Spain, in May 2016.

Assessment will be based on the students' performance in problem sets, the midterm exam and the final exam.

Grading will be based on the following principle:

Problem Sets = 30% of grade  
Midterm = 30% of grade  
Final Exam = 40% of grade

\* Students must complete all of the graded assignments to earn a total grade of at least **60%** in order to pass the course and earn a certificate of completion.

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